

IN THE CLAIMS

1. (previously presented) A method for inspecting objects, the method comprising:
creating a reference image for a representative object, said reference image comprising an at least partially vectorized first representation of boundaries representing said representative object;
acquiring an image of an object under inspection comprising a second representation of boundaries representing said object under inspection; and
comparing a location of at least some boundaries in the second representation of boundaries to a location of corresponding boundaries in said at least partially vectorized first representation of boundaries, thereby to identify defects.
2. (previously presented) A method according to claim 1 wherein the comparing employs a user-selected variable threshold for acceptable distance between corresponding portions of the boundaries in the first and second representations.
3. (currently amended) A system for image processing comprising:
a boundary identifier operative to generate a representation of boundaries of known elements in ~~the~~an image;
a hardware candidate defect identifier operative to identify at least some candidate defects in the image, in hardware; and
a software candidate defect inspector receiving an output from the hardware candidate defect identifier and analyzing a location of boundaries in said representation of boundaries to identify at least one false alarm within said output, in software.
4. (original) A system according to claim 3 wherein the boundary identifier comprises a hardware boundary identifier operative to generate a representation of boundaries of known elements in the image, in hardware.

5. (original) A system according to claim 3 and also comprising a software candidate defect identifier operative to identify additional candidate defects in the image, in software.

6. (original) A system according to claim 5 wherein the software candidate defect inspector also receives a second output from the software candidate defect identifier and uses the representation of boundaries to identify at least one false alarm within said second output, in software.

7. (original) A system according to claim 3 wherein said hardware candidate defect identifier employs said representation of boundaries in order to identify at least some candidate defects.

8. (original) A system according to claim 5 wherein said software candidate defect identifier employs said representation of boundaries in order to identify at least some candidate defects.

Claims 9. – 33. (Cancelled)

34. (new) A system for image processing comprising:

- a boundary identifier operative to generate a representation of boundaries of known elements in an image;

- a hardware candidate defect identifier operative to identify at least some candidate defects in the image, in hardware;

- a software candidate defect identifier operative to identify at least some candidate defects in the image, in software; and

- a software candidate defect inspector receiving an output at least from the hardware candidate defect identifier and analyzing a location of boundaries in said representation of boundaries to identify at least one false alarm within said output, in software.

35. (new) A system according to claim 34 wherein the boundary identifier comprises a hardware boundary identifier operative to generate a representation of boundaries of known elements in the image, in hardware.

36. (new) A system according to claim 34 wherein the software candidate defect inspector also receives a second output from the software candidate defect identifier and uses the representation of boundaries to identify at least one false alarm within said second output, in software.

37. (new) A system according to claim 34 wherein said hardware candidate defect identifier employs said representation of boundaries in order to identify at least some candidate defects.

38. (new) A system according to claim 34 wherein said software candidate defect identifier employs said representation of boundaries in order to identify at least some candidate defects.